

FIG. 1

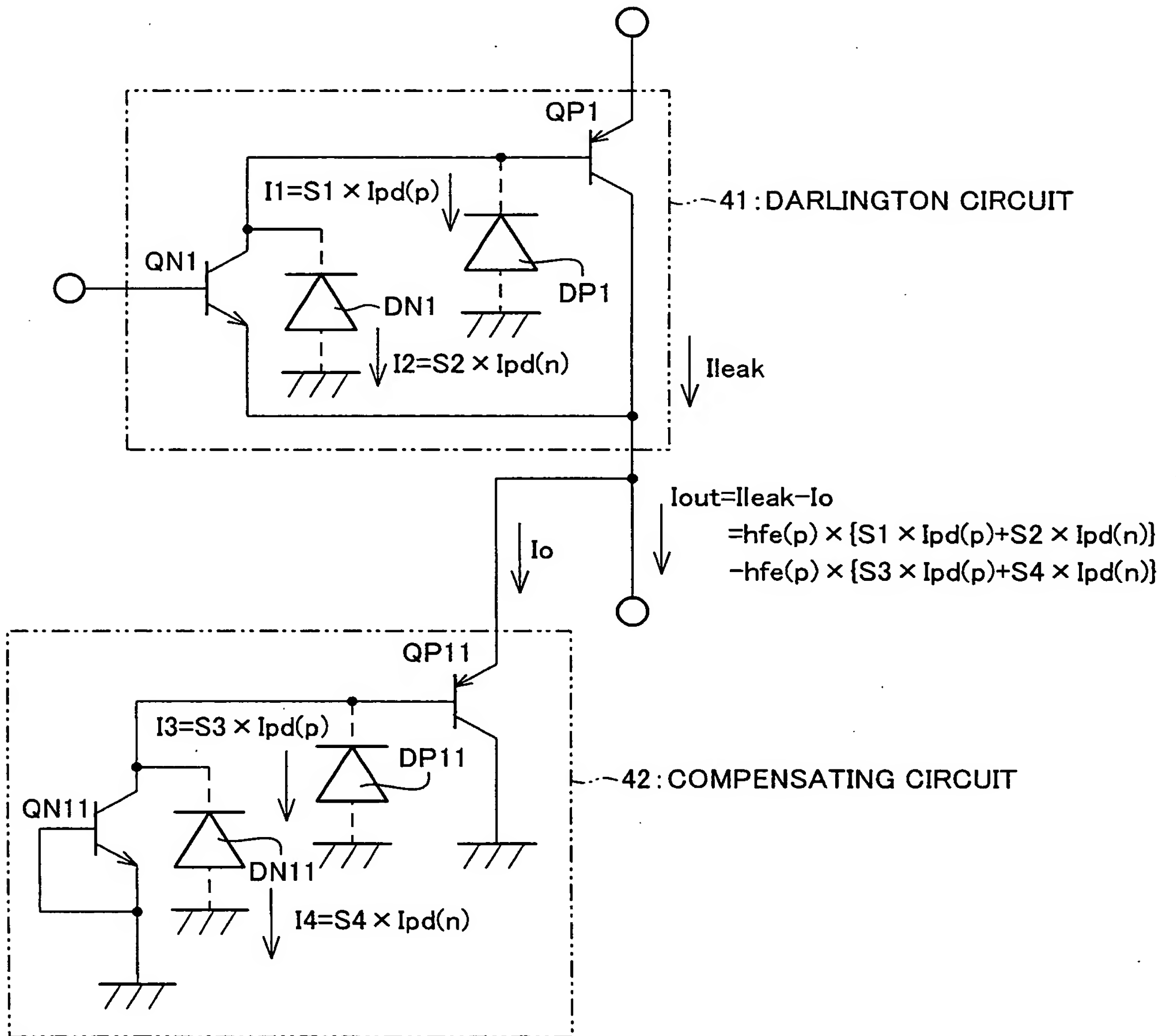


FIG. 2
RELATED ART

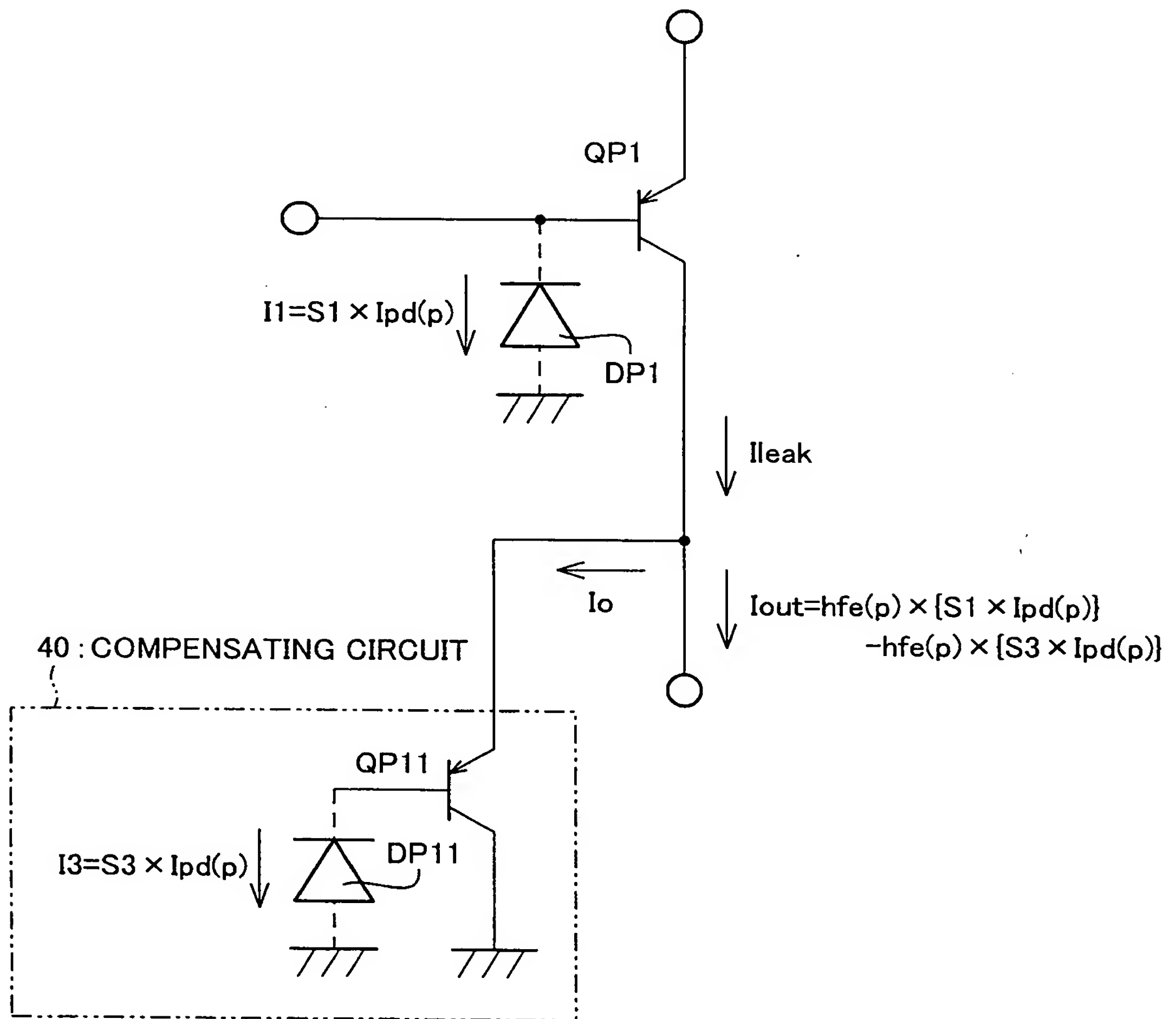


FIG. 3

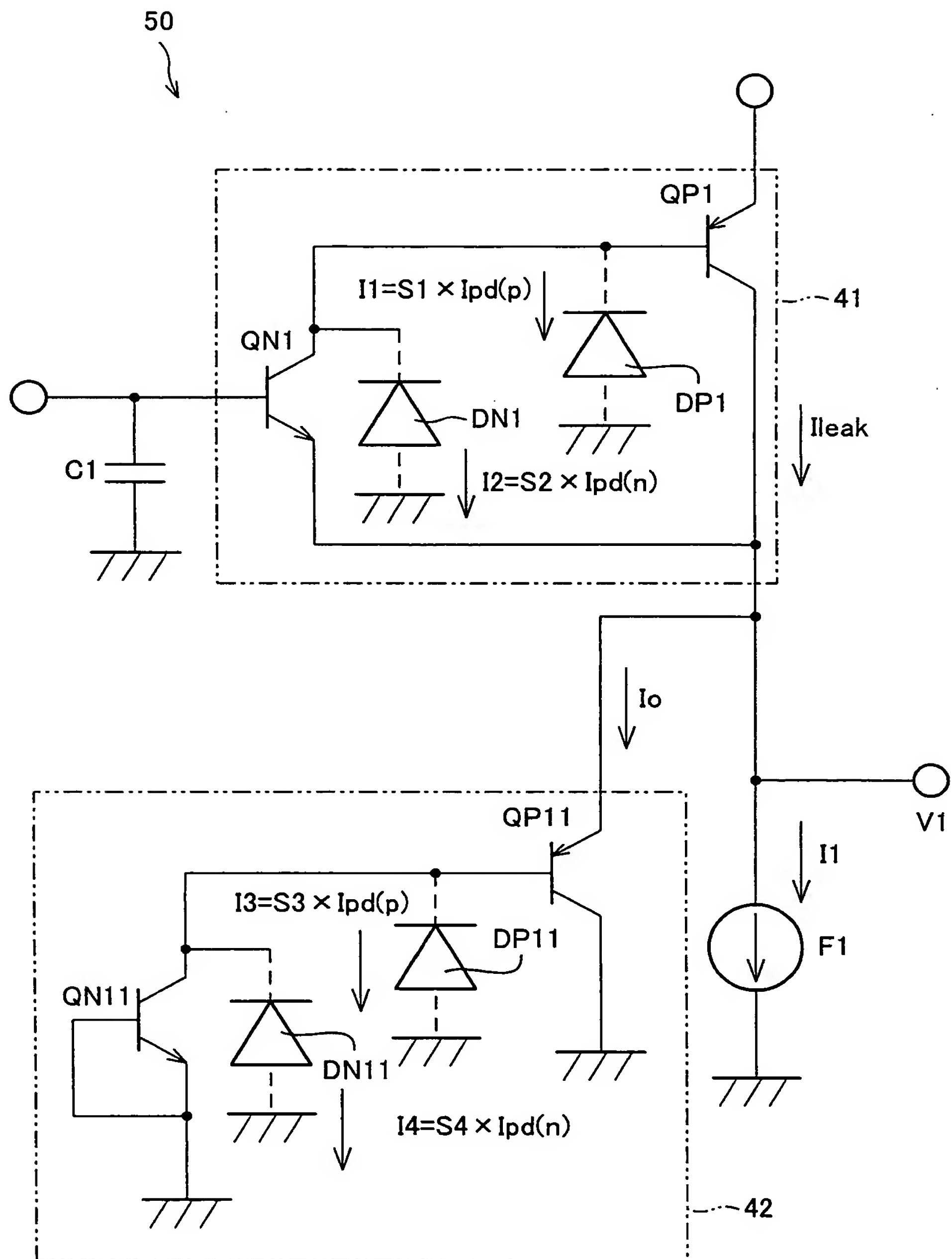


FIG. 4

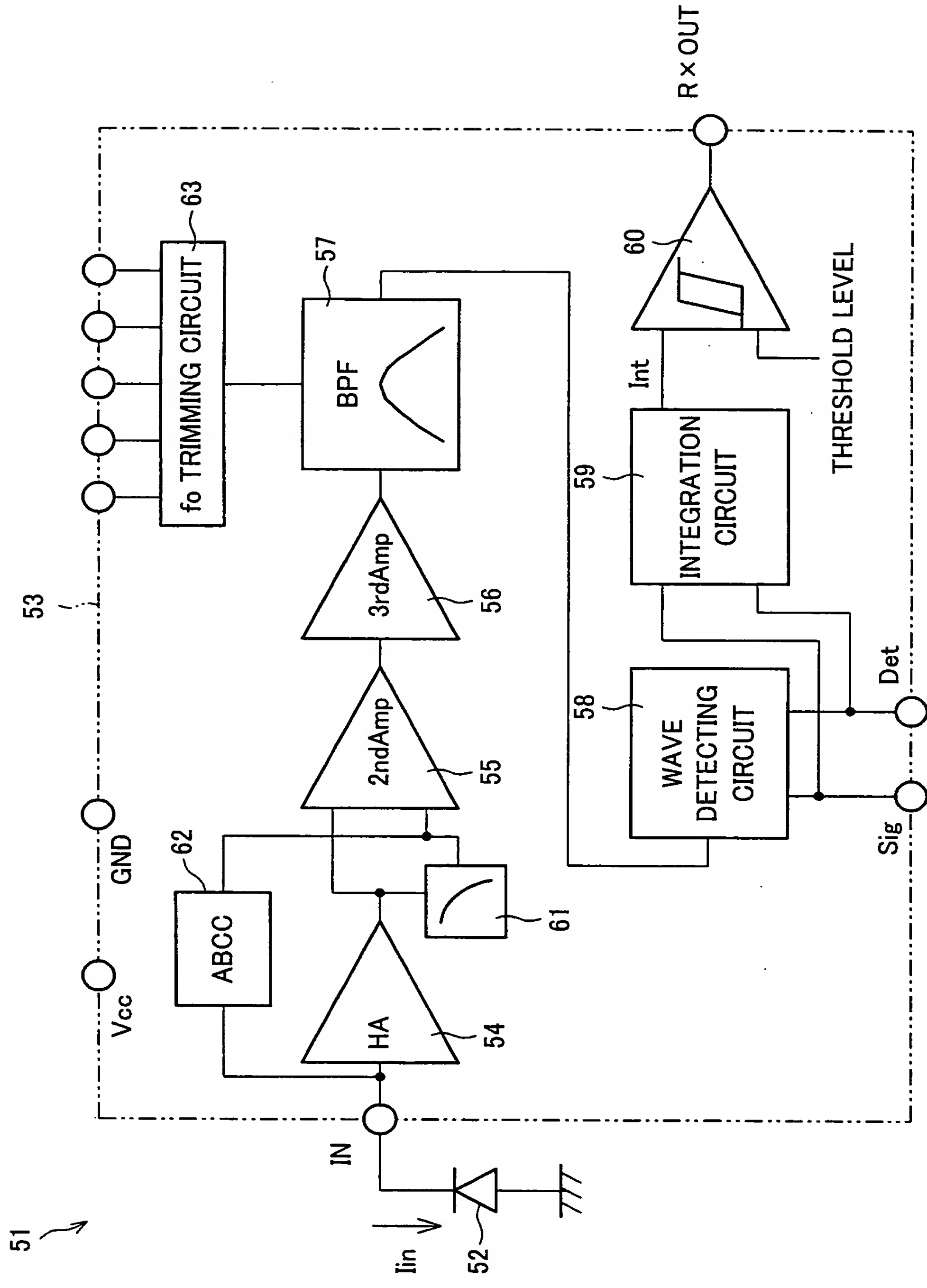


FIG. 5

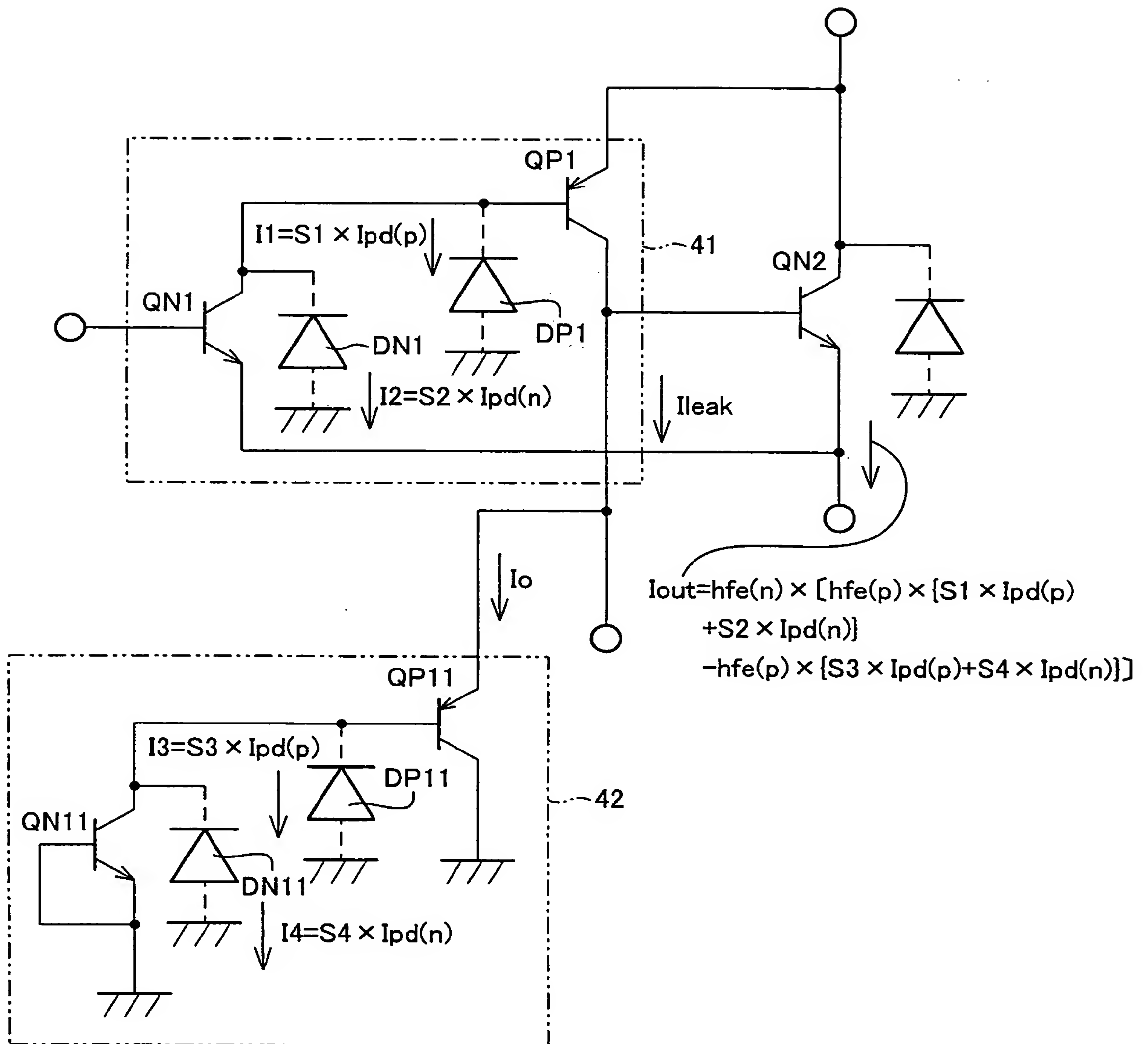


FIG. 6
PRIOR ART

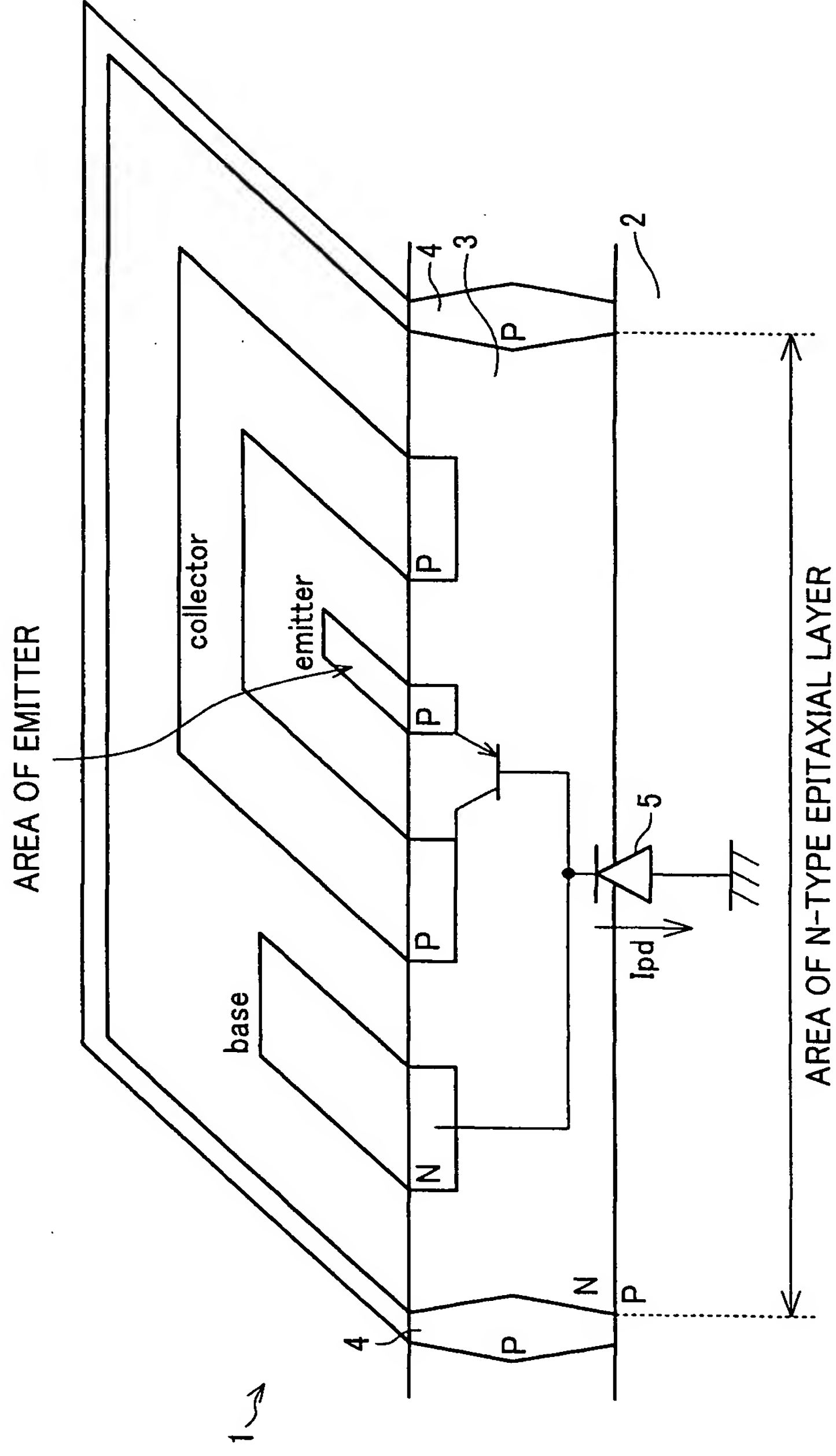


FIG. 7
PRIOR ART

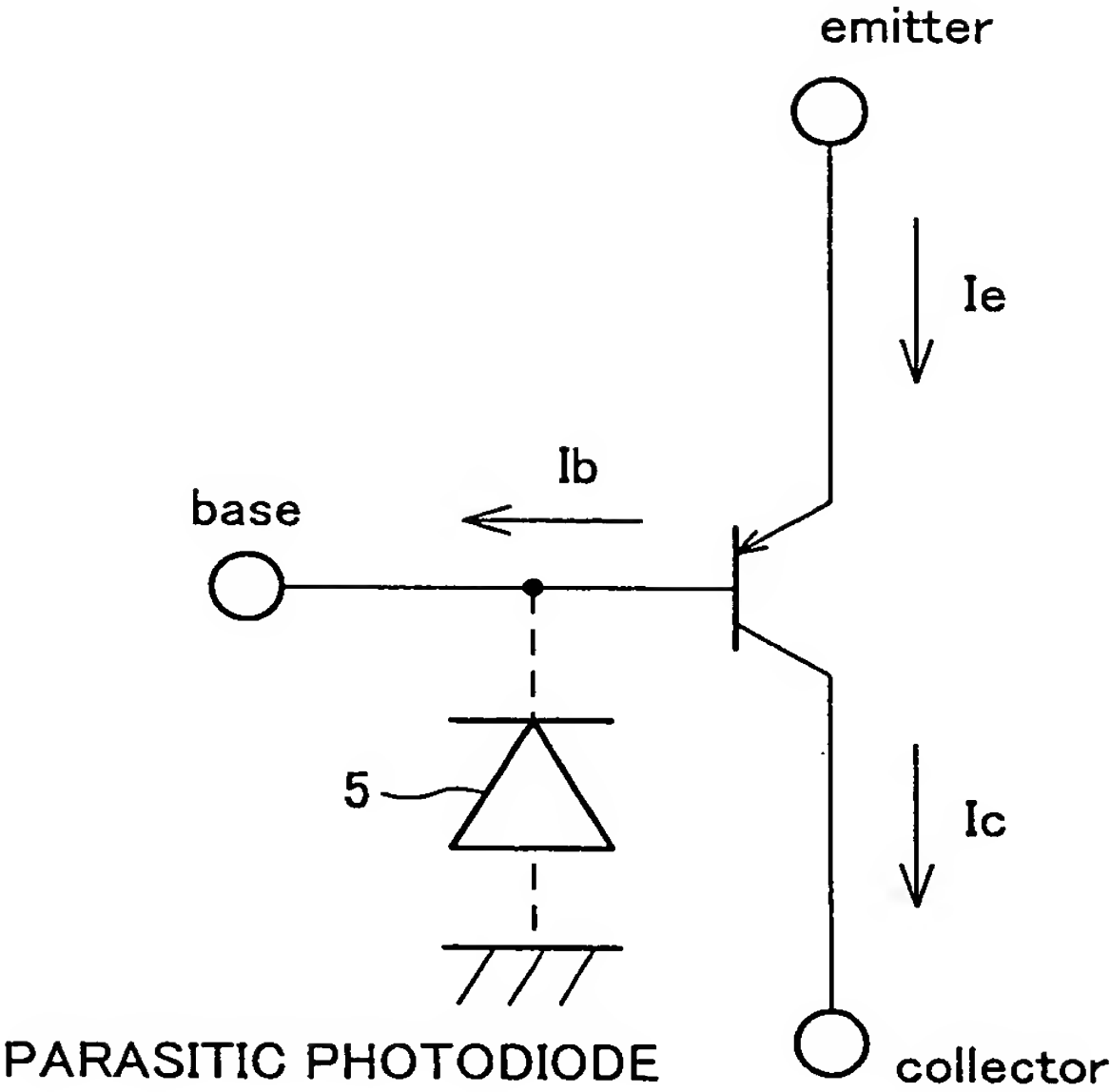
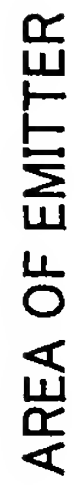


FIG. 8



AREA OF N-TYPE EPITAXIAL LAYER

FIG. 9
PRIOR ART

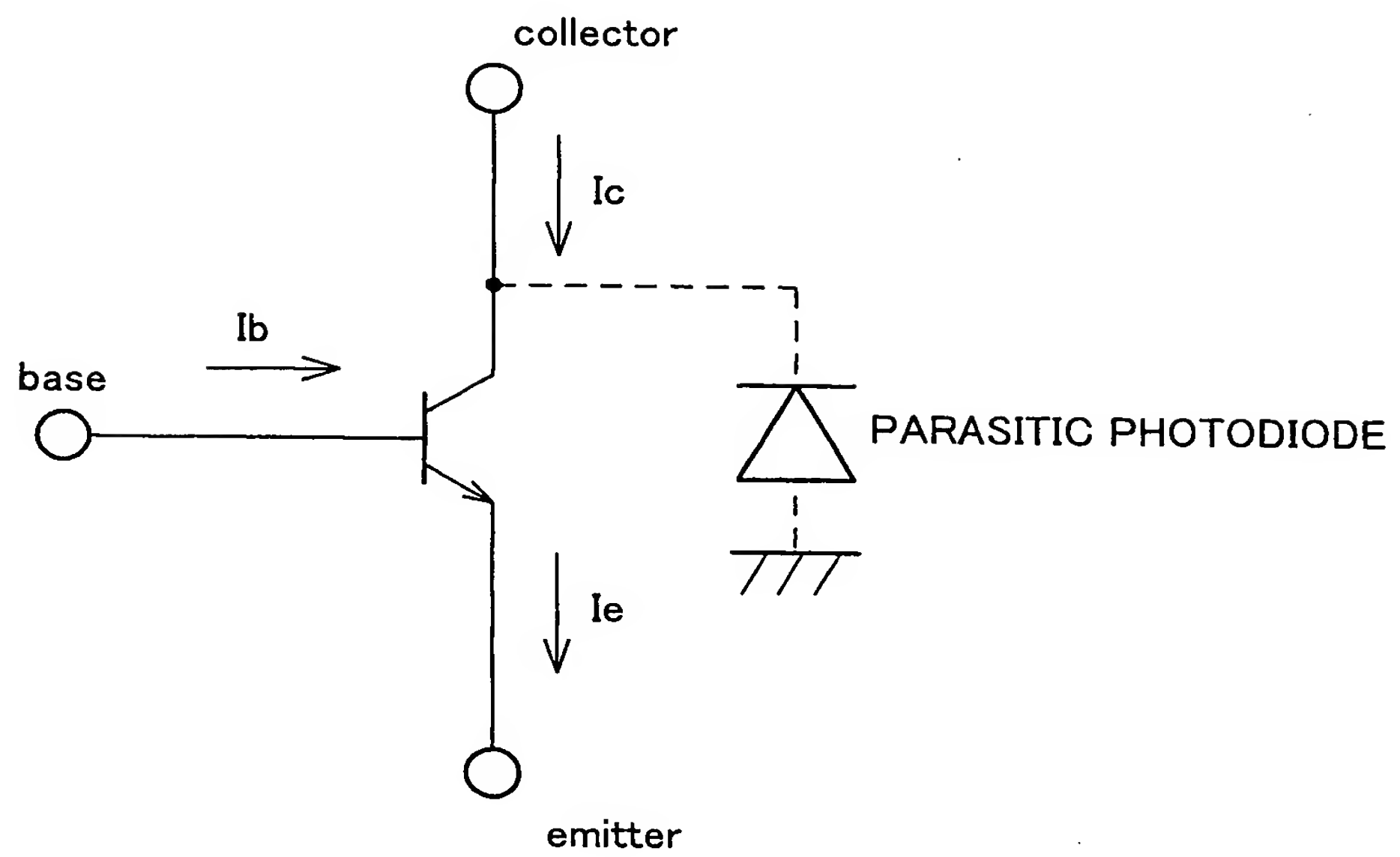


FIG. 10
PRIOR ART

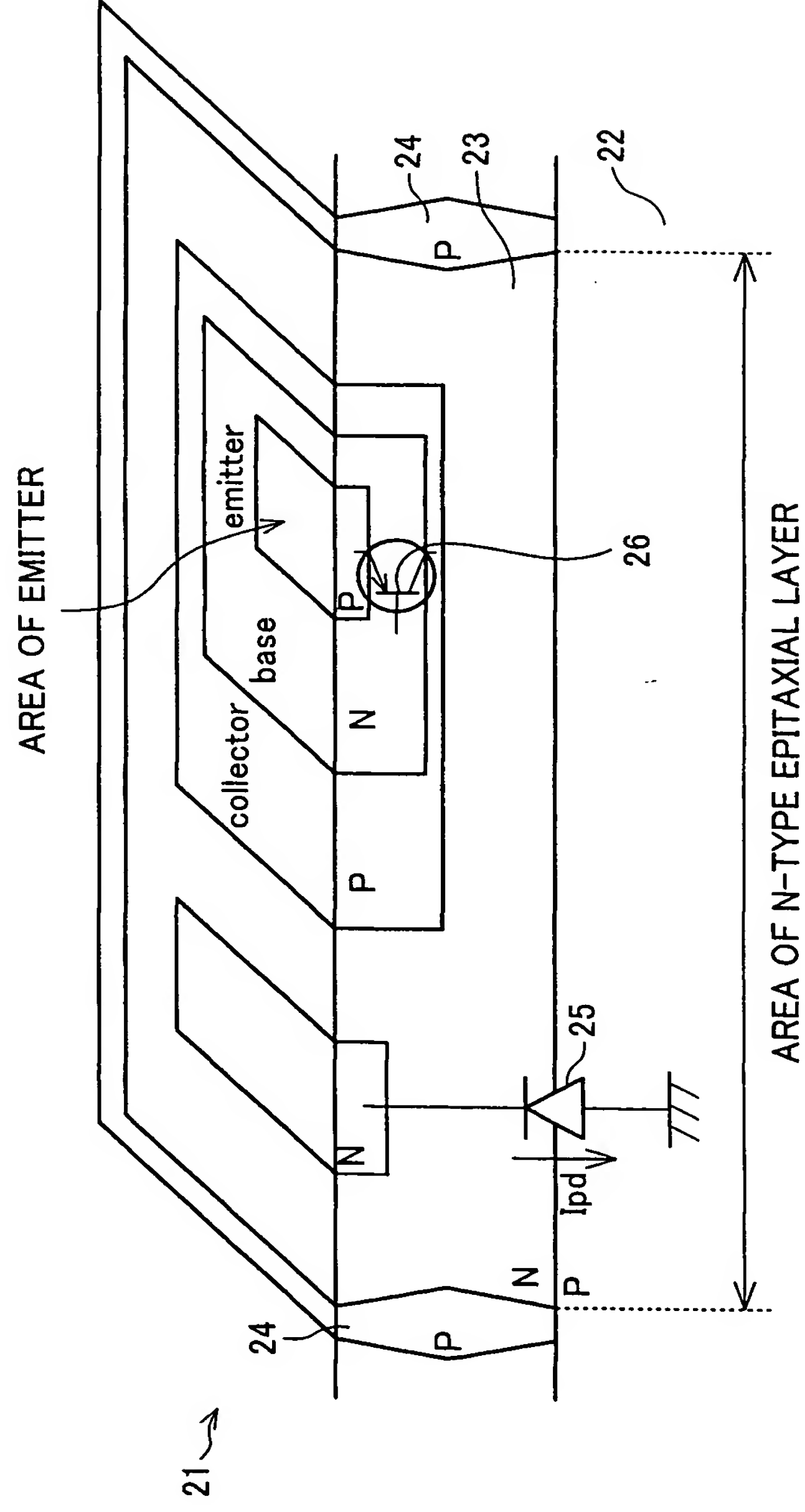


FIG. 11
PRIOR ART

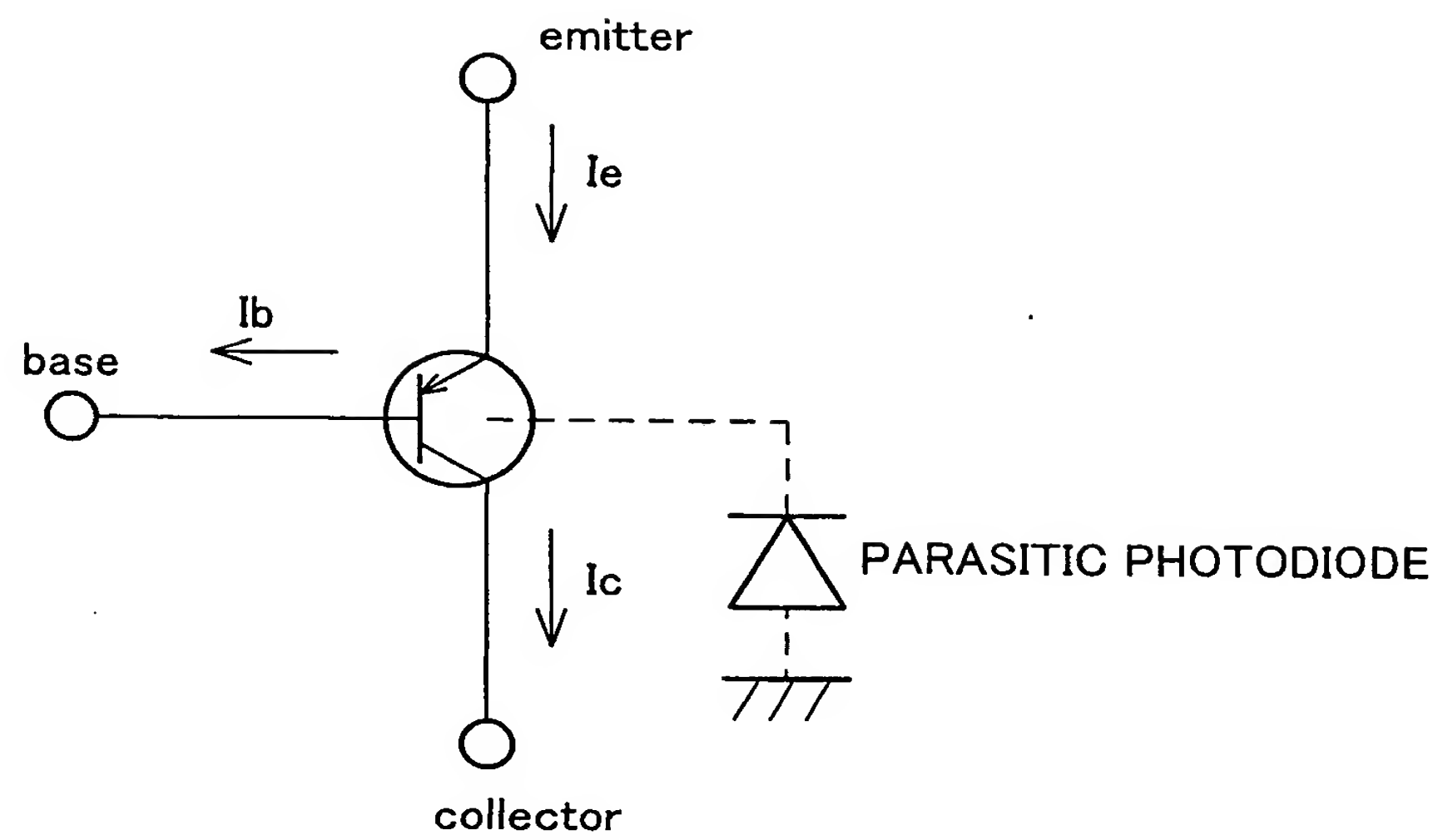


FIG. 12
PRIOR ART

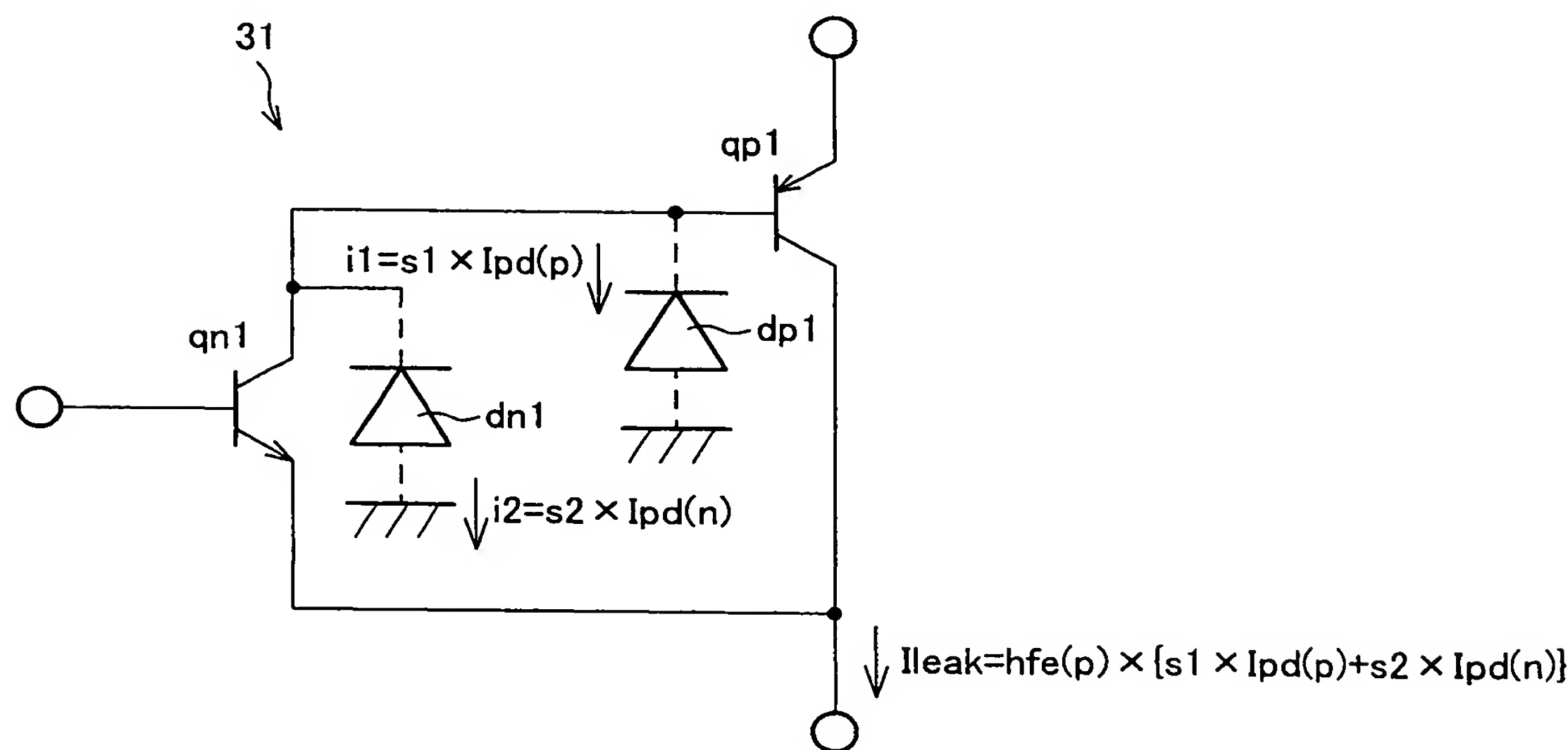
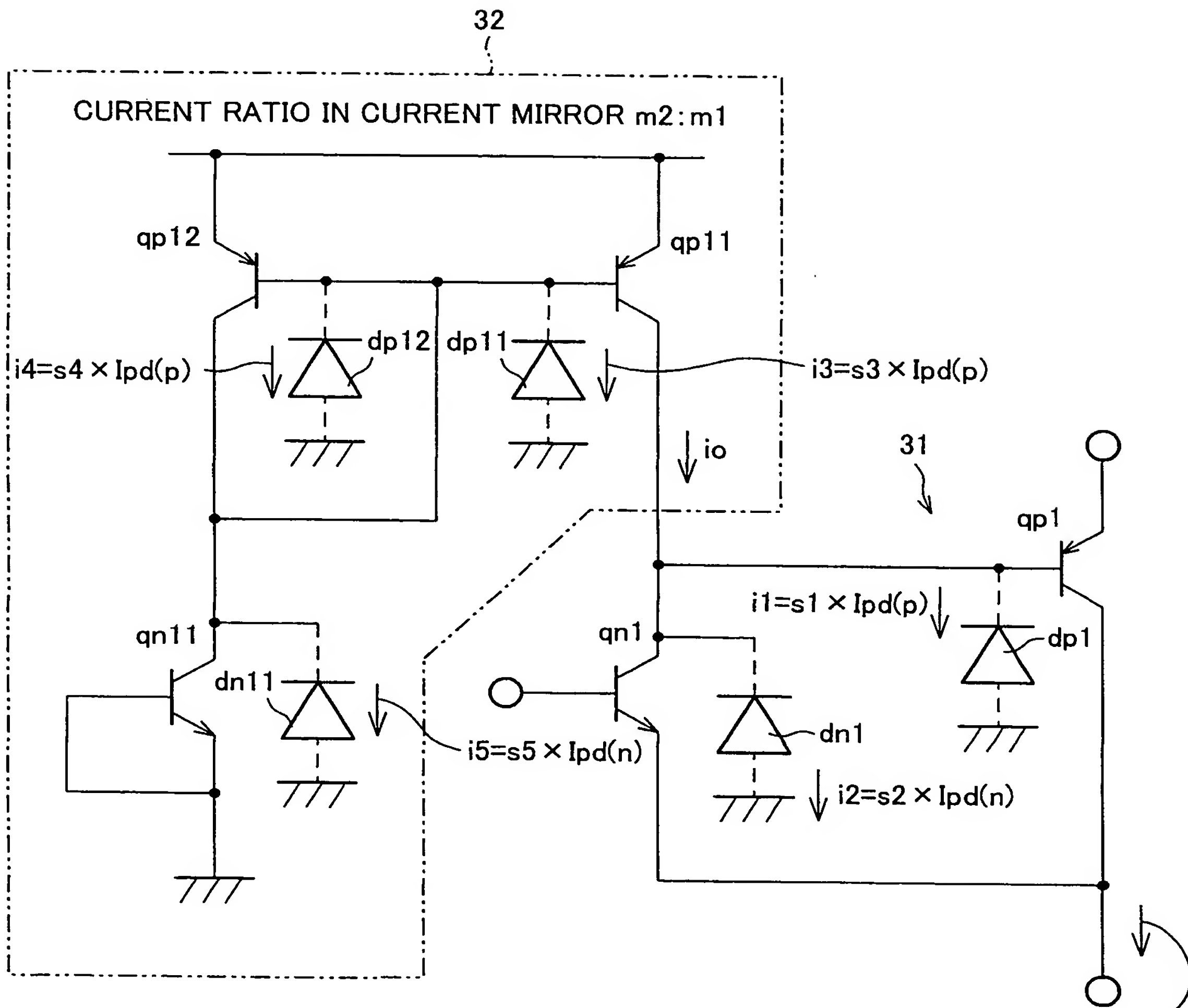


FIG. 13

PRIOR ART



$$I_{leak} = h_{fe}(p) \times \{s_1 \times I_{pd}(p) + s_2 \times I_{pd}(n) - (m_1/m_2) \times [s_5 \times I_{pd}(n) + (s_3 + s_4) \times I_{pd}(p)]\}$$